

AN 1986-255520 [39] WPIDS
 DNC C1986-110297
 TI High temperature corrosion resistant steel in calcium sulphate environment -
 comprised carbon, silicon, manganese, chromium, nickel, and iron.
 DC M27
 PA (SUMQ) SUMITOMO METAL IND LTD
 CYC 1
 PI JP 61183452 A 19860816 (198639)* 5
 ADT JP 61183452 A JP 1985-23905 19850209
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 AB JP 61183452 A UPAB: 19930922

High **Mn** steel comprises, by weight, up to 0.20% **C**,
 0.1-2.0 % **Si**, 2.0-7.0% **Mn**, 14-26% **Cr**, 8-30%

Ni and the balance substantially **Fe**. The steel may
 contain up to 0.1% in total at least one **Y**, **REM**, **Mg** or **Ca** to improve the
 corrosion resistance and/or at least one 0.03-0.40% **N**, 0.05-1.5
Ti, 0.05-1.5% **Nb** or 0.05-1.5% **Zr** to improve the strength by
 precipitation hardening of carbonitrides. Further, the steel may contain
 up to 3% **Mo**, up to 3% **W**, up to 3% **V**, up to 7% **Cu**, up
 to 0.5% **Al**, up to 0.01% **B**, up to 0.02% **P** and/or up to 0.05% **S**.
 Pref., total contents of **Cr** and **Mo** is 20% or more.

USE/ADVANTAGE - Used for steel pipes placed in a fluid bed in fluid
 bed boilers. The high temperature corrosion resistance under conditions
 attached

with **CaSO4** is improved by the addition of **Cr** with **Mn**. The
 addition of **Mn** is effective to depress the formation of sulphides
 in the steel and improves the corrosion resistance. The additives
Cr improves the corrosion resistance. The additive **Ni**
 makes the structure **austenitic**.

0/0

	≤ 0.2	C
	0.1-2	Si
	2-7	Mn
$\leq 0.1\% \sum \left(\begin{matrix} \text{Y, REM, Mg} \\ \text{Ca} \end{matrix} \right)$	≤ 0.02	P
	≤ 0.05	S
0.05-1.5 Ti , Nb	14-26	Cr
0.05-1.5 Nb	8-30	Ni
0.05-1.5 Zr	≤ 7	Cu
0.03-0.4 N	0.05-1.5	Nb
	≤ 3	V
$\leq 3\% \text{ Mo}$	≤ 0.5	Al
$\leq 3\% \text{ W}$	0.03-0.4	N
$\leq 0.01 \text{ B}$	0	
	<hr/>	Fe